

The Politics of Vulnerability: China, Russia and US Missile Defense

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THE POLITICS OF VULNERABILITY: CHINA, RUSSIA AND US MISSILE DEFENSE

EXECUTIVE SUMMARY

Thesis: Rigorous policy analysis is needed to determine if fielding missile defense—both national and theater level—advances US national interests. The deployment of a National Missile Defense (NMD) system will provide the United States some measure of protection not currently enjoyed. However, the authors conclude that while the fielding of NMD does not irrevocably detract from the overall national interests of the United States, there exist potential pitfalls that, if not addressed, could result in harm to these interests. Further, the authors conclude that involving Taiwan in an integrated national security arrangement employing Theater Missile Defense (TMD) is not in the national interest of the United States.

Background: The National Missile Defense Act of 1999 requires the President to deploy a national missile defense system as soon as technologically possible. Former President Clinton proposed four criteria when considering the fielding question: threat, cost, technical feasibility, and overall impact on US national security. The authors accepted these criteria and focused on the fourth criterion—overall impact on US national security interest.

Methodology: This paper analyzes the impact of deploying missile defense on US national security objectives through research and interviews. To conduct the analysis, the authors adopted a “traditional” policy analysis framework. The authors establish the context by considering four elements: the threat; missile defense policy; US national

interests; and the national interests of China and Russia.

US interests are contrasted with those of China and Russia. From this context, the authors propose possible response scenarios and predict the consequences associated with fielding of missile defense. Each scenario is assigned a probability, based on analysis of the context. The authors then assign a severity factor to each scenario based on the impact to US interests.

Conclusions:

TMD

- US deployment of TMD to the Asia-Pacific region, excepting Taiwan, will have no significant negative effects on US interests but could provide significant benefits not included in this analysis.

TMD to Taiwan

- The positive effects realized from providing advanced TMD to Taiwan (enhanced crisis response capability, increased warfighting capability) are outweighed by the negative effects to broader US interests (non-proliferation, WMD protection, improved relations with China, a more secure Asia-Pacific region).
- Providing less advanced TMD to Taiwan (PAC-2, PAC-3) advances US and Taiwanese objectives and minimizes the negative effects to US broader interests.

NMD

- Deploying NMD has both positive and negative effects on US interests. US

national security is not harmed to an extent to preclude deployment of NMD.

- North Korean reactions to NMD should have a minimal effect on US NMD policy decisions.
- Successful non-proliferation efforts require the active cooperation of Russia and China.
- With respect to China, the positive effects of NMD to US crisis response and warfighting interests are outweighed by the negative effects to US broader interests.
- China's commitment to maintaining a minimal strategic deterrent creates the potential for escalation (e.g. more Chinese strategic forces leads to more capable US NMD which leads to more Chinese strategic forces...). It is not clear the United States can maintain a defensive advantage over China's offensive strategic forces without a significant increase in defense expenditures.
- The fear of a regional nuclear arms race (China-India-Pakistan) as a result of US NMD deployment should not affect US NMD policy decisions.
- Domestic economic considerations will be the primary determinant in Chinese reactions to US NMD for the foreseeable future.
- Russian reaction to NMD can have significant positive or negative effects on US arms control interests. The positive effects are more likely, however, the negative effects are significant enough to warrant close scrutiny.
- The fears of Chinese-Russian strategic cooperation resulting from US NMD should not significantly effect US NMD policy decisions.

Recommendations:

The following recommendations should be adopted:

- Do not provide Taiwan advanced TMD or create a joint US-Taiwan TMD system.

The Administration must examine whether or not the President's responsibilities under the Taiwanese Relations Act can be met with PAC-3. This could be achieved through application of existing modeling and simulation. The United States should offer to defer transfer of Aegis based TMD to Taiwan contingent on Chinese agreement to verifiable missile reductions targeting Taiwan.

- Intensify initiatives to secure Russian cooperation on NMD and resolution of the ABM Treaty issue. Agreement will ensure the cooperation of United States allies and prevent the potential negative effects on United States arms control interests. Sequencing matters. Approach Russia first. Pursue the concept that links NMD deployment with United States reduction in strategic arms (better offense-defense mix). Once a satisfactory outcome is achieved, then approach China. By breaking the Sino-Russian coalition against NMD, China is more likely to reach an accommodation or understanding with the United States on NMD.

- Enhance the dialogue with China to prevent an escalation in response to United States NMD that includes increasing numbers of Chinese strategic forces and an increasingly capable United States NMD system. United States should propose a bilateral treaty with China that includes verification of Chinese strategic forces and United States NMD. Even if China rejects this proposal, the United States offer will strengthen its position on arms control in the international community.

- Ensure continued engagement with China and Russia on non-proliferation issues.

The United States must recognize it cannot be successful in controlling weapons transfers without the cooperation of both Russia and China. The United States could step-up its leadership role in this area and reassesses its own policy of arms sales.

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THE POLITICS OF VULNERABILITY: CHINA, RUSSIA AND US MISSILE DEFENSE

CHAPTER 1 INTRODUCTION

Within days of taking office, the new Bush administration made a momentous decision –to deploy a national missile defense system together with a theater missile defense system as part of its foreign policy objectives and for force protection of American Servicemen stationed overseas.¹ It has generally been argued that such a deployment is intended to counter ballistic missile attack by rogue nations such as North Korea, but the ramifications of such a deployment are much farther reaching. In particular, China and Russia have argued strongly against deployment of such a system. Both see a defensive shield as destabilizing and potentially leading to an arms race. The effects of possible Russian and Chinese reactions on US national security are the focus of this paper.

The United States became serious about missile defense in 1983, when President Reagan first announced his intention to establish a defense against strategic missile attacks. This effort became known as “Star Wars” and was overseen by the Strategic Defense Initiative Organization (SDIO). The program’s initial focus was to design an architecture capable of defeating a major attack by Soviet nuclear forces. With the end of the Cold War, emphasis shifted to architectures more focused on homeland defense against limited missile attacks and force protection. This shift in emphasis was codified when SDIO was re-named the Ballistic Missile Defense Organization (BMDO) in 1993, a

name retained today. BMDO now has three major program areas: National Missile Defense (NMD), Theater Missile Defense (TMD), and the Ballistic Missile Technology Program.

The Bush Administration has initiated two ongoing reviews of defense policy and force structure, which will decide the future emphasis within BMDO. The President has promised to deploy a robust national missile defense, but is reportedly looking at technologies beyond the limited architecture considered by President Clinton. The stated threefold aim of such a missile defense system was for homeland defense, US force protection, and the protection of Allies. The on-going Quadrennial Defense Review (QDR) and the recently-appointed “sweeping review of the US military”² by Andrew W. Marshall will likely begin to point to the path the Administration will pursue with respect to the missile defense issue.

By Act of Congress, the United States is committed to deploying a national missile defense system as soon as technically feasible.³ Despite this requirement, President Clinton postponed deployment of a limited system in September 2000. He established four criteria for his decision: technological feasibility, threat, cost, and impact on national security. At that time the President determined that immediate deployment was not warranted. Technological feasibility was a factor in this decision. Early tests had proved unsuccessful. A consensus, at least in the United States, has developed which recognizes the emerging ballistic missile threat. The United States is not alone in this recognition. The Russians have acknowledged the threat of rogue ballistic missiles and are both cooperating on TMD exercises and offering to co-develop a boost-phase system capable of strategic defense. Regarding the cost criteria, the proposed architecture and the

technological solutions will determine the necessary defense expenditures. However, the impact on national security was cited as the primary concern and is therefore key to this debate. Specifically, open Allied opposition, vociferous Russian and Chinese opposition, and the impact on the 1972 ABM Treaty were seen as significant obstacles. These same concerns exist today.

Because of the national security concerns outlined above, there exists a need for a systematic evaluation of how the fielding of missile defense impacts US national objectives. This paper meets that need. The authors identify potential impacts and present specific findings, conclusions and recommendations to minimize negative impacts on the objectives.

Both TMD and NMD have an impact on US national security. The authors found that the ongoing fielding of TMD systems has a negligible effect on the larger missile defense debate, with the exception of China. Specifically, many nations are developing and deploying TMD. The United States has co-development projects with Japan and Israel and is conducting a series of TMD command and control exercises with Russia. In short, the further development and deployment of TMD systems is a given. Only with respect to China and Taiwan does this issue potentially impact negatively on US national security interests. As such, TMD will not be considered further except for the impact on China, and specifically with respect to China's relationship with Taiwan.

The major players in the missile defense debate are Russia, China, US European Allies, Japan, and the Koreas. However, only Russia and China have significant impact. Both are major nuclear powers, vocal critics of missile defense, and can act to undermine US national security objectives and, therefore, will be the focus of this analysis. Europe,

Japan, and South Korea have largely acquiesced to a US NMD deployment. While US threat assessment documents cite the North Korean missile capabilities as a prime reason for developing and deploying missile defense, their response, short of a verifiable elimination of weapons of mass destruction (WMD), will not significantly affect the US decision to deploy NMD.

Methodology for the Review

This paper will analyze the impact of deploying missile defense on US national security objectives. To conduct the analysis, the authors adopted a framework that is depicted in Figure 1.1. The figure illustrates the flow of this analysis and forms the basis of the chapters to this paper.

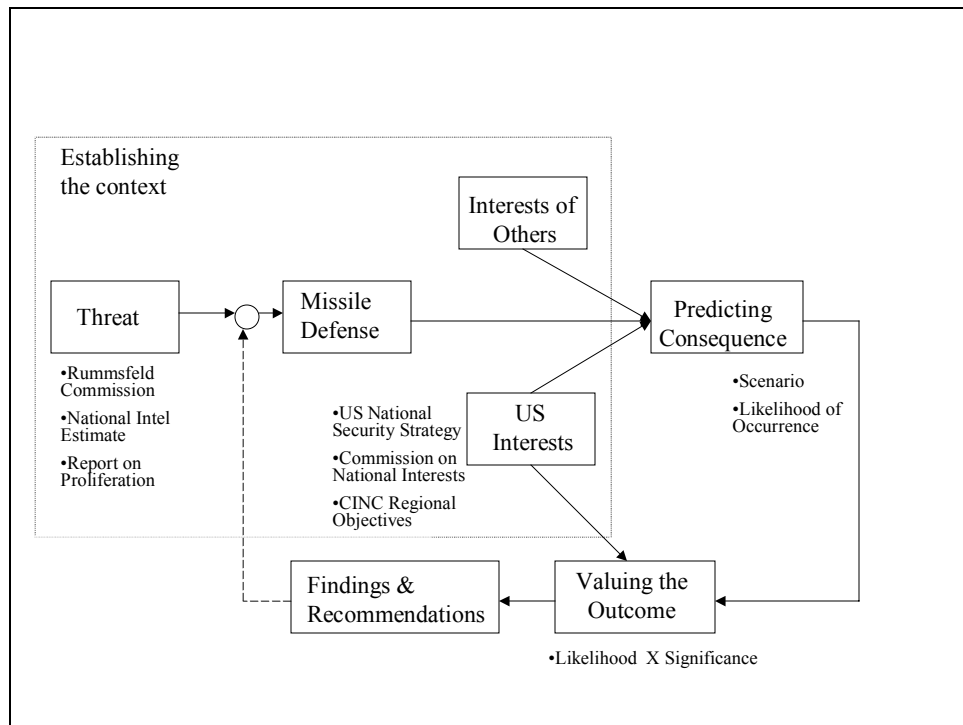


Figure 1.1 – Methodology Framework

The next chapter establishes the context by considering four elements: the threat; US

missile defense plans; US national interests; and the national interests of China and Russia.

The threat is as described in the documents cited in Figure 1.1. For purposes of this analysis, missile defense consists of the US policy of a limited NMD system and a TMD system as described in Chapter Two. US interests are derived from the sources also cited in Figure 1.1 and are contrasted with the national interests of China and Russia. From this context, the authors developed possible response scenarios in Chapter Three – “Predicting the Consequences.” Each scenario is assigned a probability, based on our analysis of the context. In Chapter Four – “Valuing the Outcome”, a severity factor is assigned to each scenario based on its impact to US interests. Severity is rated on a scale of negative five to positive five. A negative five denotes an event or action deemed calamitous to the US national security interest against which it is evaluated. Likewise, a positive five would be of immense benefit. While this assessment is based on the value judgment of the authors, it quantifies the magnitude of effect upon a particular interest. The severity factor is then multiplied by the probability of occurrence to establish the “risk” of a negative impact or the potential benefit of a positive impact on each US interest.

$$T = P * F$$

where: T is the total impact or “risk”,
P is the likelihood that the scenario will occur, and
F is the severity factor (significance)

From these calculations, portrayed graphically, the authors report our findings, conclusions, and recommendations.

THE POLITICS OF VULNERABILITY: CHINA, RUSSIA AND US MISSILE DEFENSE

CHAPTER 2 ESTABLISHING THE CONTEXT

This chapter will cover the threat initiating the call for a missile defense response, US national interests that might be served by missile defense and the interests of the countries under consideration.

The Threat

The threat used in this analysis is extracted from the sources described in Figure 1.1 and discussed below.

According to the CIA National Intelligence Estimate (NIE), over the next 15 years, the US will most likely face an ICBM threat from Russia, China, North Korea and probably from Iran and possibly from Iraq.⁴ Three so-called “rogue” states or “states of concern;” North Korea, Iran and Iraq are the threats driving the NMD requirement. The United States projects that North Korea may already have a few nuclear weapons and could re-initiate a reactor/reprocessing program. All three likely have chemical and biological weapons capability. Exacerbating this situation is the proliferation of missile and nuclear capabilities by North Korea, China, and Russia; and potentially India and Pakistan. Inter-Continental Ballistic Missile (ICBM) delivery of WMD is perceived as the most prestigious or coercive threat. However, many alternative methods to deliver WMD to the United States have most likely been devised, any one of which might be the method

of choice for the terrorist or a “rogue” state. Short-range ballistic and cruise missiles could be launched from platforms just off the US coast or from within our territory. These systems and SCUD missiles are also likely threats against US and Allied forces and civilians abroad.

China

For the last 30 years, strategic deterrence has successfully balanced the threat from China’s nuclear arsenal to US interests. China employs a minimal deterrence strategy maintaining less than 200 nuclear warheads and 20-30 operational ICBMs at any given time.⁵ China declared it would never use its nuclear forces against a non-nuclear power, maintains a no-first-use pledge in its strategic nuclear doctrine, and regards its strategic nuclear force as a deterrent against intimidation or actual attack. Thus, China’s stated doctrine reportedly calls for a survivable long-range missile force that can hold a significant portion of the US population at risk of a retaliatory strike. China today is modernizing its strategic nuclear missile program with development of the Dong Feng-31 (DF-31) mobile missile, assessed to have a maximum range of 8000 km, and expected to enter service between 2002 and 2005. A sea-launched version of the DF-31 is also under development.⁶ Another longer-range mobile ICBM, the DF-41, is under development with a 12000 km range, and likely will be tested within the next several years. This missile would most likely be targeted primarily against the United States.⁷ Exact numbers of these missiles are unknown, but some experts estimate that 50-70 Multiple Independent Reentry Vehicles (MIRV) DF-31 and DF-41 ICBMs could be fielded by 2010.⁸

Russia

Over the last 45 years, the United States and Russia have maintained a strategic balance in nuclear capability based on the strategy of deterrence. Today with its declining military budget, Russia relies more heavily on its nuclear force as a means for national security. These nuclear forces are subject to the same declining defense budget. Safeguards, both in equipment and personnel, have suffered. As a result, the most significant threat from Russia may be an accidental launch of one or two missiles, which could trigger a US response and subsequent Russian second strike. Such a scenario is now considered more credible as the Russian economy struggles to support the existing nuclear arsenal.

Missile Defense Policy

The Bush Administration has not yet specified a missile defense configuration, pending completion of the on-going defense reviews. Therefore, this analysis defines NMD as a defense against a limited threat of “tens of ICBMs,” with simple countermeasures. The NMD retains the potential for continued development and expansion to address more robust threats. The authors assume that TMD will be fielded in its current envisioned system-of-systems, multi-tier configuration.⁹

US National Interests

US interests used in this analysis are derived from the source documents identified in Figure 1.1. Where appropriate, similar interests were combined and only those germane to this analysis are included. They are broken up into three broad categories.

These categories are listed below in order of importance. The authors made no attempt to rank the importance of each individual interest within the three categories.

Category A

- Prevent, deter, and reduce the threat of nuclear, biological and chemical weapons attacks on United States territories, critical infrastructure, its military forces or allies.¹⁰
- Establish productive relations, consistent with American national interests, with nations that could become strategic adversaries, China and Russia.¹¹ This includes:
 - Maintain the one-China policy and the principles set forth in the US-China communiqués of 1972, 1979 and 1982.¹²
 - Maintain military-to-military relations.¹³
 - Seek a Russia cooperatively engaged with its neighbors and integrated in Euro-Atlantic and global communities.¹⁴
- Prevent the regional proliferation of WMD and delivery systems.¹⁵
- Contribute to a more secure, peacefully developing Asia-Pacific region, including peace in the Taiwan Strait.¹⁶ This includes: promoting openness and transparency in the PLA and the Chinese national security apparatus, including its military institutions, strategic intentions, procurement, budgeting and operating procedures.¹⁷

Category B

- Maintain the ability to fight and win decisively.¹⁸

- Preserve crisis response capability.¹⁹

Category C

- Maintain, support, and contribute to the integrity and adaptation of NATO.²⁰
- Advance arms control and disarmament processes to reduce nuclear weapons and delivery systems and achieve an appropriate mix of strategic offensive and defensive forces.²¹ This includes modifying the ABM Treaty to allow for NMD deployment against potential rogue state attacks.²²

China (Including Taiwan)

Chinese National Interests. China emerged from the “century of humiliation” into a world dominated by the bi-polar environment of the US-USSR. This bi-polar period then gave way to the post Cold-War world, characterized by most as a unipolar environment, dominated by the United States. China is dissatisfied with this regional and international environment where its “place at the table” is often undervalued. In 1990 Deng Xiaoping declared “China is now a major political power” and “will become a major economic power in a relatively short time.” This theme was echoed in 1997 by Jiang Zemin who emphasized, “the multi-polarization is making headway in the areas of politics and economy in both the global and regional areas.”²³ This drive to be a recognized regional power and to prevent US hegemony fuels the Chinese pursuit of “comprehensive national power.” Chinese leadership sees this power as derived from two priorities: sustained economic expansion and sovereignty and regime maintenance.²⁴

China’s call for economic expansion is recognized in the Pentagon’s June 2000 Report to Congress which states, “Beijing places top priority on efforts to promote rapid

and sustained economic growth, to raise technological levels in science and industry, to explore and develop China's land and sea based national resources and to secure China's access to global resources."²⁵

The second priority, sovereignty and regime maintenance is only second given China's decision in 1972 essentially to shelve the Taiwan issue indefinitely. This was initially to improve relations with the United States in the face of the more threatening Soviet Union, but today enables China to develop its economy as the means to achieve its national power. This, however, does not suggest that China would allow Taiwan to simply slip away to further the Chinese economy or to cultivate a deeper relationship with the United States. Reunification remains a central issue for China.

China's need to modernize its military balances these two priorities. Specifically, this need to modernize is constrained by its need to concentrate on the first priority - the economy. A lack of transparency into their defense apparatus makes it difficult to assess the relative priority of military modernization. In 1999, for example, China "officially" spent \$12.6 billion on defense, and \$14.5 billion in 2000, and continues to increase at about 18% per year.²⁶ The magnitude of these numbers is misleading however, and is significantly greater if the Parity Purchasing Power (PPP)²⁷ approach is used and all military-related activities are included, such as nuclear procurement, military R&D, and pensions. Adjusting for these factors, many analysts conclude China's defense spending is at least four times larger, and possibly as much as 10 times larger.²⁸ The lower end of this range would place China's defense spending on parity with Japan, and the upper range would put China's defense spending at about one third of the United States. The People's Liberation Army's (PLA) priority focuses on high technology weapons that enable

asymmetric engagement including information operations, missiles, Unmanned Air Vehicles (UAV), precision munitions and space. For example, China is expected to have second-generation ballistic missiles and a first generation land-attack cruise missile capability by 2005.²⁹ In any case, China appears to be content, for the time being, to moderately “grow” its military by focusing first on its economy.

Taiwanese National Interests. According to Dr Wei-Jen Hu, Deputy Secretary General of Taiwan’s National Security Council, Taiwan’s top national interest can be summed up in one word: survival.³⁰ Taiwan recognizes that any overt movement toward independence would be very dangerous, and would likely invite a significant Chinese response. This was evident in President Chen Shui-bian’s inaugural address in May 2000, where he deviated from the common theme of his Democratic Progressive Party by pledging to maintain the status quo and not to declare independence “as long as the CCP regime has no intention to use force against Taiwan.”³¹ This distinction between quasi-independence and legal independence represents a fuzzy line, which benefits Taipei and is at least tolerable to Beijing as well.

Included in Taiwan’s interest is the economic relationship that Taiwan enjoys with China. Even without a political relationship between these two entities, Taiwan continues to enjoy a significant economic involvement with China, representing 21% of Taiwan’s exports. In comparison, the US represents 26% of Taiwan’s exports³². Further, according to statistics released in Taiwan, investments made by Taiwanese in mainland business reached US\$2 billion in the first 10 months of 2000³³.

Analysis of Interests. In any analysis to predict consequences or responses, it is necessary to analyze national interests and objectives of the affected states to assess

common and opposing priorities. However, simply contrasting the United States interest in reducing the threat of WMD to China's interest in comprehensive national power, for example, is not instructive. A more useful way to compare the United States and other nations is to dissect and categorize interests into objectives and analyze how each align or conflict. Table 2-1 contrasts these objectives. The more significant contrasts are discussed below.

An important conflict is the regional pressure caused by China's objective to diminish, and perhaps replace, the United States as the most influential regional power in Asia. Today the United States enjoys access and influence in the region with its Japan alliance, forward presence in Japan and Korea and a developing engagement policy with China. This US-Japan-China trilateral relationship is critical for maintaining a "preventive defense" approach in this region in the absence of a stabilizing force such as NATO.³⁴ The United States, as the strongest military in the region, provides a stabilizing force for the other "strong poles" such as Japan and Russia. As such, China must balance competing interests. China, while suspicious of the United States, trusts Japan even less, even to the point of loathing, as a result of the historically rooted hatred for years of brutal occupation.

Even though China resents the US role in the area, the prospect of a Japanese military build-up is more distressing. It is important to note, however, that America's presence in the region is only acceptable to China because it replaces, not strengthens, Japan's forces.³⁵ As such, China looks suspiciously at the US' desire to strengthen this alliance and increase Japan's role.

Non-proliferation of WMD and missile delivery systems, a high priority for the

United States, is also a declared priority by Beijing, and would appear to be a shared interest. However, China's commitment to non-proliferation is not clear given its history on this subject. China ratified the Nuclear Non-Proliferation Treaty (NPT), signed the Comprehensive Test Ban Treaty (CTBT) and declared it will abide by the Missile Technology Control Regime (MTCR). Nevertheless, as recently as 1997, China has engaged in proliferation activities "problematic" for the United States, and its activities remain a concern.³⁶ In recent years Chinese entities have participated in nuclear, chemical and missile proliferation to Pakistan, Libya, North Korea and Iran. This is in part due to China's government infrastructure not keeping pace with the rapid increase of Chinese entities that have access to sensitive technology. As of late, Beijing appears to be stepping up emphasis in proliferation control procedures, if for no other reason than US prodding. For example, in 1997 China pledged not to engage in any new nuclear projects with Iran and has lived up to this commitment. Also, in response to US concerns that Chinese companies supported missile programs in Iran and Pakistan, China announced in November 2000 that it would not assist any country in developing ballistic missiles that can be used to deliver nuclear weapons.³⁷ This pledge goes beyond requirements outlined in the MTCR. Chinese analysts and scholars report that Beijing increasingly recognizes that proliferation is not in China's interest. These analysts maintain that China's relationship with the United States, and stability in the Middle East and on the Korean peninsula, aid China's economy, which is the primary objective. However, some Chinese analysts do add the caveat that "non-proliferation is not a substantial interest."³⁸ As one of the world's key producers of missile-related and chemical technologies, China remains a proliferation source of concern for the United States.³⁹

In any discussion of Chinese national security, all roads lead to Taiwan. “[The] settlement of the Taiwan issue and the realization of the complete reunification of China embodies the fundamental interests of the Chinese nation.”⁴⁰ While China recognizes that regional stability is key to meeting its first priority, sustained economic expansion, this “second” priority remains second only as long as China believes an eventual reunification is not preempted. In its White Paper on National Defense in 2000, China proclaims that it “will never give in or compromise on the fundamental issue concerning state sovereignty and territorial integrity.” The White Paper goes on to say that “the Chinese government firmly opposes any country selling arms or entering into military alliance in any form with Taiwan [...]” and that China “will adopt all drastic measures possible, including the use of force, to safeguard China’s sovereignty, territorial integrity, and achieve the great cause of reunification.”⁴¹

These words are consistent with an analysis indicating that China would likely go to war over Taiwan, even losing the economic benefit it now derives from Taiwan and the United States. First, reunification rectifies the century of humiliation wherein China lost Taiwan to the Japanese, successfully regained it after WWII, only to lose it again a few years later. Second, nationalism has replaced communism. Because China has embraced a market economy, the Communist Party must compensate for the loss of Communist ideology by stressing nationalism. The loss of Taiwan would be a catastrophic blow to China’s nationalistic fervor. Third, China sees the loss of Taiwan as a first step of a national break-up. Other regions such as Tibet, Xinjiang, and Inner Mongolia are the most notable in the chain of dominoes that China fears might fall.⁴² Fourth, the PLA is likely to support reunification by force. With the demise of the Soviet Union, the PLA is a military

searching for a mission. As described in China's White Paper on national interests: "...defending the state's sovereignty, unity, territorial integrity and security" is a main element in its defense policy objectives. Ensuring Taiwan remains a Chinese province - territorial sovereignty- is the justification for the funds for PLA's modernization priorities. Fifth, an independent Taiwan would most likely politically align itself with Japan and the United States, creating an unacceptable security situation for China. Any presence in the Strait of Taiwan that is not Chinese is viewed as a threat. Finally, Taiwan's independence would cut off the envisaged passage in the South and East China Sea, limiting China's long-term development objectives.⁴³ Balancing the Taiwan issue is China's national fervor toward its economy, which is linked to a US relationship. As such, short of a Taiwanese declaration of independence, China's priority will remain its economy. For the time being, China's best strategy may be to maintain the status quo with respect to Taiwan. The United States desires the status quo, without dismissing reunification, as long as it is peaceful. As Harvard's Kennedy School of Government Dean Joseph S. Nye Jr., former Assistant Secretary of Defense stated: "The US has a moral obligation to protect the political and economic liberties of Taiwanese people, but no moral obligation to go to war over a declaration of independence."⁴⁴

The Korean peninsula remains a regional hotspot. China has benefited greatly from the stability in the region, and would clearly like that to continue, an interest shared with the United States. China would prefer for the peninsula to remain nuclear free, particularly with the possibility of reunification. In 1994, China worked effectively behind the scenes with the United States to limit North Korea's nuclear capability in the "the agreed-to-framework" and convince Pyongyang not to withdraw from the NPT.⁴⁵

This cooperation is the only time China has participated with the United States in stabilizing the region, and is clearly in the US interest to cultivate.

Bilaterally, China sees the United States as a strategic trading partner that advances its economic interests. The United States receives 22% of China's exports, making it China's largest market.⁴⁶ The United States seeks to prevent China from becoming a strategic threat to US global or regional interests. Competing with this US interest are China's objectives to remove the United States as the largest regional power, to deter the United States militarily and to be free from US coercion. However, China today is a long way from becoming the Asia-Pacific hegemony or a military threat to the United States, and thus some will argue the US-China relationship does not deserve to be weighed as a US vital interest.⁴⁷ The greatest immediate threat to the United States today is not a hegemonic China, but the potential outbreak of regional war in the Taiwan Straits or Korea.⁴⁸ As a key regional power, China is essential to stability in this region and the US-China bilateral relationship is instrumental to this shared regional interest.

Russia

President Clinton considered several factors when he decided in September 2000 to delay a decision on a national missile defense system. Key among those factors, possibly even decisive, was the potential Russian reaction to NMD deployment.⁴⁹ No person has seriously contended that the US system, as envisioned by the Clinton Administration, would provide any significant protection against the Russian nuclear arsenal. Clearly, Russia's arsenal of 6860⁵⁰ strategic warheads would be able to overwhelm a limited NMD. Only in a second strike scenario might a limited NMD affect

the US-Russian strategic balance. The primary issue is the 1972 ABM Treaty.

Russian Objectives

Deployment of a national missile defense is but one of many vital issues in the complex and varied US-Russian relationship. To anticipate possible reactions, Russia's objectives must be analyzed. These are clearly laid out in the new "Foreign Policy Concept of the Russian Federation," approved by President Putin in June 2000.⁵¹ This new foreign policy first lists the "growing trend towards the establishment of a unipolar structure of the world with the economic and power domination of the United States"⁵² as a threat to Russia's national interests.

Similar objectives certainly do exist between Russia and the United States. Russia prominently lists averting proliferation and anti-terrorism as global goals; these clearly match US pronouncements. The path to these goals, however, differs starkly in each country. A national missile defense system only provides a defense to one element of the overall WMD proliferation threat to the United States. While Russia acknowledges the viability of an active missile defense, it is seen as a tremendous disadvantage. In their view, deployment violates the ABM Treaty, will not avert the proliferation of nuclear weapons, and only enhances the unipolar power structure so dominated by the United States. Each consequence is in direct contrast to the stated objectives of Russia. Additionally, they believe it will fuel further nuclear weapons deployments by themselves, China, India, and Pakistan. With Russia's current fiscal situation, maintaining the existing arsenal of strategic nuclear forces is near impossible. Indeed, Russia has indicated a desire to further reduce nuclear forces in the context of an arms

control treaty.⁵³ Their economic turmoil has simultaneously forced them to reduce their strategic nuclear forces while publicly declaring a new military strategy that relies more heavily on them, including a first use declaration. In Russia's view, US deployment of a national missile defense would only exacerbate their problem. With the possibility of future expansion, such a system could threaten their existing arsenal, requiring them to expend scarce resources on more or newer missiles, re-MIRV existing missiles, or develop sophisticated countermeasures and decoys.

It is in Europe and NATO, however, where US and Russian objectives most conflict. Russia does not believe the European Union is giving Russian interests due respect in its plans to expand NATO. The emerging European Security and Defense Initiative (ESDI) will "become an object of particular attention" for Russia while it "retains its negative attitude towards the expansion of NATO".⁵⁴ This issue, coupled with stated European opposition to abandoning the ABM Treaty, positions Russia to be able to complicate EU and NATO expansion (clear US objectives) and to try to drive a wedge between Washington and US Allies in Europe over national missile defense and the ABM Treaty.

A Comparison

Table 2.2 depicts US, Chinese, and Russian objectives discussed above.

	US	China	Russia
Global	Prevent and Deter WMD Estab Productive Relations Status Quo as superpower	Multi-Polar System No US Hegemony	Multi-Polar System Avert Proliferation of nucs Maintain ABM treaty Russian Prosperity
Asia-Pacific	Stable & secure region Access & Influence Non-Proliferation	Recognition Increased role in Regional issues Reduce Western influence Stability	Maintain access
US	x	No Strategic US threat Trade Economy Reduced coercive threat	Limit/Reduce strategic nuclear weapons
China	No strategic threat No peer Competitor Develop Relations	x	Maintain Relations
Taiwan	One China policy Trade Access	Reunification Trade	x
Russia	Support democracy & economic transition Control sensitive technology	Strategic Trading partner Eliminate Border threat	x
Japan	Strengthen Alliance Increase global response	Status quo	Northern Islands Resolutions
South Korea	Stability on Peninsula	x	x
M East	Maintain Access Security & Stability No WMD Containment	Strategic trade relationship Weapons sales	x
Europe	Whole & Free EU Expansion Integrate Russia Limit Russian Influence	x	EU respects Russian interests Wary of EU military dimension Support CFE
NATO	Preserve & Expand Enhance cooperation	x	No expansion Cooperate per the Founding Act 1997 No out-of-area use of force

TABLE 2.1 - A Comparison of Objectives

THE POLITICS OF VULNERABILITY: CHINA, RUSSIA AND US MISSILE DEFENSE

CHAPTER 3 PREDICTING THE CONSEQUENCES

This chapter will establish scenarios in response to a US deployment of missile defense. For each scenario the authors assign a likelihood of occurrence. It is important to note that these scenarios are not necessarily mutually exclusive and represent a range of possibilities that could occur individually or in combination.

China

In predicting consequences, both China's interests as well as the timing of world events are significant. China's preoccupation with its economy will greatly influence any responses. Thus the question becomes: What can China do without jeopardizing its economic growth? Linked to this is timing. China's interest in gaining world recognition is served by accession to international forums such as the WTO and the 2008 Olympics. These forums are both important sources for national pride and are a potential bonus for China's economy.

Missile Defense and China

According to Major General Pan Zhenqiang, PLA, the United States is "looking to enhance its security at the expense of other nations' security."⁵⁵ In considering missile defense it is important to recognize that for China, "all roads lead to Taiwan," whether considering TMD or NMD. China views the TMD plus NMD environment as designed to

“put them in a box.” Missile defense violates every Chinese internal, regional, global and all but one bilateral interest. This leaves trade with the United States as the only counteracting interest, which severely limits China’s options. China has criticized the joint US-Japan TMD technology development program. More importantly, China has denounced US statements regarding sales of TMD to Taiwan as “constituting a belligerent act.”⁵⁶ This paper, in part, considers China’s response to both these missile defense alternatives.

Joint US-Japan TMD.

Historically, China opposes the US-Japan joint TMD program. First, China sees US-Japan cooperation on TMD as potentially strengthening Japan’s inherent offensive military capability by providing technology currently not in Japan’s defense industry base. Second, TMD diminishes China’s missile capability against Japan, detracting from China’s regional objectives. Third, TMD represents to China an expansion of US-Japanese influence and power in the Asia-Pacific - exactly what China would like to limit. The most contentious issue in this scenario would be the ability of an Aegis-based system such as Navy Theater Wide (NTW) to defend Taiwan. After much open criticism of the Joint US-Japan TMD research, Beijing softened its position, acknowledging the inherent need for the United States to protect its deployed forces. Sha Zukan, the chief Chinese arms negotiator, announced on 15 March 2001 that China “would not contest US plans to deploy an Asian missile defense system to protect US troops there.”⁵⁷ This change was predictable, particularly considering the potential of a US-Russia joint TMD venture and the international support for force protection of overseas troops. Further, this

concession is likely to be used to bolster China's case against US sales of advanced TMD to Taiwan. Given this change in China's previous position, the authors subsequently dismiss TMD in Japan from further analysis in this paper, acknowledging the significant benefit TMD in this region provides to freedom of action and force protection.

TMD to Taiwan.

The important issue in this calculus is not the missile defense *per se*, but enhanced US-Taiwanese relations associated with advanced TMD (e.g. Aegis-based TMD) systems. Today, China has deployed approximately 300 ballistic missiles along its coast and adds approximately 50 more per year.⁵⁸ A force of this size could potentially overwhelm the TMD systems. In fact, China has accepted the presence of Patriot Advanced Capability (PAC)-2 systems in Taiwan and would likely not react excessively to the even more advanced, stand-alone PAC-3 systems regardless of its public statements to the contrary.⁵⁹ What makes advanced TMD different from other arms sales is that it represents a challenge to Chinese sovereignty by integrating Taiwan into a US layered-sensor and command and control defense system. This integration would likely require a US-Taiwanese joint concept of operations, exercises, and military-to-military interaction. It also would demonstrate a significant upgrade in relations between Washington and Taipei. In contrast to Patriot, Beijing sees Aegis-based TMD, and its de-facto "military alliance" with the United States, resulting in confidence building measures that could lead Taipei to openly pursue independence.

What would China do?

According to Yan Xuetong, Executive Director for the Institute of International Studies at Tsinghua University, China's response to Aegis-based TMD in Taiwan would be a "political earthquake."⁶⁰ The authors foresee three scenarios.

Conventional Missile Build-Up. China would most likely continue or accelerate its conventional missile build-up to maintain sufficient missiles to coerce Taiwan. The objective here is to maintain an ability to overwhelm the capabilities of the TMD systems (90% likely).⁶¹

Confrontation. China may also escalate its role as a regional and international "spoiler," with a potential for extreme political actions. China could impede US initiatives with the motivation of reducing US influence in the region. For example, as a permanent member of the Security Council, China could derail US-led resolutions in the United Nations. China could also strengthen its ties to North Korea and Iran and choose not to participate with the United States in crisis response regarding these nations of concern. Indeed, in scenarios where Sino-US relations deteriorate, a further warming in China-North Korea relations is likely.⁶² It is less probable that China would break its formal commitments regarding non-proliferation, however, China would likely continue to take advantage of ambiguities in those commitments to advance its strategic and economic interests.⁶³ For example, China could selectively enforce its MTCR pledge or break off dialogue regarding the Fissile Material Production Cutoff Treaty (FMCT). Additionally, past actions which China could repeat include: temporarily recalling its ambassador, suspending military-to-military interactions, boycotting US products or

suspending port calls in Hong Kong. Given China's public statements, the authors judge that China has to react to advanced TMD sales to Taiwan in order to remain credible in the future. This reaction could include some combination of the actions described above (60% likely).

China could interrupt commerce in the Strait with the threat of force by firing a missile across Taiwan, as was done in March 1996, increase military presence in the Strait through exercises or harass commercial shipping in the area. In this scenario, the motivation is to deter Taipei from pursuing independence. Given the mixed results from the March 1996 missile-firing attempt, this scenario is considered unlikely (10% likely).⁶⁴

Likewise, China could intensify the response with a limited use of force. China could blockade or mine the Straits or could strike Taiwan's key infrastructure with a missile barrage, but hold short of an all out assault and invasion.⁶⁵ China's motivation in this response is to demonstrate to Taiwan that they are vulnerable. However, this scenario has no good end game for China given the potential for US military response. Short of a Taiwanese declaration of independence the authors believe this response is unlikely (5% likely).

Finally, China could adopt a course toward reunification by force. China today is unable to mass an adequate invasion force to deal with the Taiwanese military even without US intervention.⁶⁶ However, China could respond by rapidly accelerating its conventional military build-up with the objective of prosecuting an invasion at a later time. Indeed, in response to the possible sale of Aegis cruisers to Taiwan, China's most seasoned diplomat, Quain Quichen, stated that the sale would "change the essence of the

issue from a peaceful approach to bring about unification to...a military approach.”⁶⁷

Despite this strong statement, the authors do not believe China will pursue the military build-up required to enable a forceful reunification in response to TMD. The economic cost associated with a military build-up is too great. Therefore, the military build-up and forced reunification scenario is unlikely (15% likely).

Cooperation. It is possible China could do nothing except protest. China could ultimately attempt to make a deal with the United States to minimize the damage to its interests. This scenario is possible given the general acceptance TMD enjoys within the international community and China’s strong desire to maintain economic ties to the west. However, given the linkage to Taiwan, it is unlikely China will accept advanced TMD in Taiwan without significant political protest to maintain some credibility. For this reason, this “protest and deal” scenario is unlikely (10% likely).

National Missile Defense. China’s ICBM modernization preceded the US plan to develop a limited NMD capability and, as such, is not a response to NMD. The United States maintains that NMD is not aimed at the Chinese strategic force. Regardless, Chinese analysts dismiss the US stated objective as “...make[ing] little sense” and believe that a US NMD system will “deny China’s strategic deterrent.”⁶⁸ Further, China and Russia openly criticized the US deployment of NMD as a program “aimed at seeking unilateral military and security superiority.”⁶⁹

Here again, “all roads lead to Taiwan.” Chinese military leaders and scholars maintain that an effective Chinese nuclear capability limits US responses and increases the likelihood the United States will negotiate in the event China uses force against

Taiwan.⁷⁰

What Would China Do?

The authors foresee three scenarios.

Nuclear Modernization. China would most certainly adjust its ICBM strategy to retain a credible retaliatory strike capability. The questions become: how many missiles and of what kind? According to Dr. Li Bin, Director of the Arms Control Program at Tsinghua University, China is at a crossroads in its nuclear modernization. Today, China's focus is on survivability, safety, and control measures to survive a first strike.⁷¹ Given NMD, China's modernization priorities could shift to defeating NMD sensors, decoys and anti-satellite technology to attack NMD space sensors.⁷² China's minimal deterrent strategy requires the ability to survive a US first strike with a credible retaliatory capability. From China's perspective, the combination of a US preemptive strike, together with NMD, has the potential to deny China a second strike capability. The Chinese further believe that building more missiles alone cannot ensure a second strike capability. Given the overwhelming number of US ICBMs, the US could target 100 Chinese ICBMs just as easily as it could target 20. China could also interpret the US goal of defeating "tens of missiles" as "defeating 90 missiles", and may feel compelled to increase operational ICBMs or warheads by over 100 in order to enable its force to survive the first strike.⁷³

China currently has the technology and resources to MIRV its ICBMs as well as develop penetration aids against NMD, and has conducted tests with these configurations. China would prefer not to increase its operational missile inventory or increase the

sophistication of the delivery systems for economic reasons. Nevertheless, since US NMD conflicts with so many basic Chinese interests and objectives, this “nuclear modernization” scenario (including a significant increase in warheads and penetration aids) is highly probable (90% likely).⁷⁴

Some analysts contend that a nuclear build-up by China in response to NMD will have the negative effect of causing a regional arms race with Pakistan and India. This risk is overstated; the arms race in Asia is spurred by regional rivalries and will continue or abate independent of US fielding of NMD. First, India is more likely to respond to the development of the 8000 km DF-31 mobile missile. This missile, with extremely limited coverage of the United States, threatens all of India and is not a response to NMD. A regional arms race may occur, but will not be a direct result of the deployment of a US NMD system.⁷⁵

Confrontation. China’s reaction to NMD would likely include an “extreme spoiler” role. An example would be reduced support of US initiatives. China has also made public statements that it would reconsider its non-proliferation policies in response to NMD. In July 2000, Sha Zukang stated: “to say the least, our enthusiasm and participation in all of those [non-proliferation] regimes, particularly cooperating with the United States [...] would be severely dampened.”⁷⁶ As China increases its emphasis on warhead development, non-proliferation regimes such as the CTBT and FMCT could become constraining to China’s interests, and Beijing could justify not strictly following its commitments. Further, China could choose to export its penetration aid technology to North Korea or Iran without directly impacting Chinese national security⁷⁷. Additionally,

political protests as described in the TMD alternative can be expected. This “extreme spoiler” confrontation scenario is considered likely (70% likely).

Cooperation. It is possible China could do nothing except protest. Also, China could ultimately attempt to make a deal with the United States to minimize the damages to its interests. This possibility was insinuated in Sha Zukang’s statement “China wants to narrow its differences with the Bush administration over its plan to protect the United States from a limited missile attack.”⁷⁸ Additionally, should Russia reach an accommodation with the United States on NMD, China may feel more pressure to cooperate. However, given how China links NMD to Taiwan, it is unlikely China will yield on this point without significant concessions. This “protest and deal” cooperation scenario is unlikely (30% likely).

Russia

The US and Russia are actively cooperating on TMD. On 6 September 2000, the two nations announced the “US-Russian Strategic Stability Cooperation Initiative,” an agreement built on two previous statements: the “Joint Statement on Principles of Strategic Stability” of June 2000 and the “Joint Statement on Cooperation on Strategic Stability” of July 2000.⁷⁹ The statement commits the two countries to “...expand cooperation in the area of Theater Missile Defense” including involving other nations, and specifically points to “expansion of the bilateral program of joint TMD command and staff exercises.”⁸⁰ Both nations are actively involved in defining TMD, conducting joint exercises in TMD employment, and ensuring TMD systems comply with the provisions

of the ABM Treaty. Russia seems willing to accede to or jointly participate in nearly any program meeting the definition of TMD. As noted in Chapter One, TMD systems, as they relate to Russia, have a negligible effect on the larger missile defense debate and are not discussed further.

The cooperation displayed on TMD is totally absent when dealing with a NMD deployment by the United States. The actions by both nations have been diverse and, at times, contradictory. The United States has formally proposed amendments to the ABM Treaty to Russia, signed agreements confirming the ABM Treaty as the cornerstone of international strategic stability, and publicly stated a willingness to unilaterally withdraw from the Treaty if necessary. Russian rhetoric is negative toward NMD and any modification of the ABM Treaty. However, Russian officials have publicly expressed contradictory statements on NMD. At various times they have agreed to hold discussions on modifying the Treaty; categorically refused any modification; and threatened to withdraw from all arms control treaties should the US deploy NMD.

Two Schools of Thought

While Russia has had nearly twenty years to formulate an official reaction or policy to US NMD (from the time President Reagan first proposed “Star Wars”), Russia is divided into two main camps regarding the current debate.

One prevailing viewpoint can be coined as promoting “reluctant cooperation”. Those in this camp do not necessarily support modifying the ABM Treaty, however, they realize Russia has very few means to prevent the United States from unilaterally withdrawing from the Treaty and going its own way. Therefore, they argue that Russia

should agree to modify the Treaty, but obtain concessions in return for their acquiescence.

Options open to them include:

- Having influence over US NMD design and function.
- Seeking transparency of NMD deployment.
- Adopting a NMD verification regime.
- Allowing Russia to retain MIRVed ICBMs under START III.
- Lowering the total number of deployed warhead totals under START III.⁸¹

The opponents to this view maintain that the arms control agreements concluded with the United States in the 1990s did nothing to enhance Russian security, primarily because Russia's increasing power imbalance vis-à-vis the United States provides zero leverage during negotiations. The following are cited as consequences of these past bad agreements that put Russia at a disadvantage:

- START II (having to accept zero MIRVs).
- ABM demarcation agreements (they believe Russia was too lenient).
- Adherence to MTCR (Russia gives up too much economic opportunity).
- The NATO-Russia Founding Act.

Considering these agreements, this group believes no agreement is better than a bad agreement and they favor Russian unilateral measures to meet their security requirements.⁸²

Confrontation or Cooperation?

The official rhetoric emanating from Russia has been varied and has reflected the ebb and flow of US-Russian strategic cooperation. During the Yeltsin era, a period of

close cooperation, the official rhetoric against renegotiating the ABM Treaty was muted. The rhetoric has noticeably sharpened since the election of President Putin. He has had to confront not just the possibility of US NMD deployment, but also the potential start of construction in 2001. The seeming reprieve delivered when President Clinton postponed immediate deployment in September 2000 was short-lived with President Bush's stated goal of an immediate and robust deployment.

As illustrated in Appendix A, Russian reaction to NMD has varied widely, spanning a range from harsh rhetoric against a US deployment to proposals for developing a joint US-Russian, boost phase, ballistic missile defense system.⁸³ Nothing is more indicative of the debate in Russia than their recent January 2001 statements. In the space of one month, Russia committed to double its defense budget in response to NMD, the Foreign Minister proposed serious talks with the United States on missile defense, and Russian military officers participated in a joint TMD exercise with the United States in Colorado.⁸⁴

Hence, predicting Russia's actual response to US deployment of NMD is tenuous. It is useful, certainly, to analyze those concrete actions Russia has already taken, and also to anticipate their possible reactions.

Russian Actions to Date

Some Russian actions may provide an insight into their future responses to US NMD, including:

- Enacted in July 1999, the "Federal Law on Financing of Strategic Nuclear Forces." This law ensures a minimum and continuing funding of Russia's

strategic nuclear forces. Two main factors led to this law. First, in response to a probable deployment of a US NMD system, Russia must maintain robust strategic nuclear forces to ensure their relevance and survival. Second, with the severe deterioration of their conventional forces, Russia's military doctrine has evolved to a declared reliance on nuclear weapons to balance the conventional superiority of potential adversaries, particularly China. This doctrine includes the potential first use of nuclear weapons. Therefore, not maintaining the viability of these nuclear forces would completely undermine the current basis of Russian military doctrine.

- In November 1999, tested an endo-atmospheric version of the A-135 strategic anti-missile interceptor. This test demonstrated Russia's stated determination to ensure its strategic nuclear deterrent is not degraded by a US NMD system.
- Renewed talks with Ukraine on purchasing Soviet era strategic bombers left in Ukraine at the dissolution of the USSR. The purchase of these aircraft was, for many years, deemed too expensive and unnecessary. These talks illustrate Russian nervousness about the viability of their ICBMs and SLBMs to US NMD, and a potential increased reliance on air-breathing nuclear delivery systems (bombers, cruise missiles).
- Resumed production of the SSN-23 SLBM. SLBMs, when launched near US shores, fly in a reduced trajectory, significantly reducing their vulnerability to any type of missile defense system.
- Announced further progress on the S-500 missile system, a primary component of a potential new Russian NMD system, the testing of which would also violate

the ABM Treaty.⁸⁵

These past actions illustrate Russia's determination to try to maintain a viable nuclear force, despite the economic sacrifice associated with these actions.

Effects on the Strategic Balance

The ABM Treaty allows each nation to employ offense forces, but limits and tightly controls defensive forces. A site of 100 missile interceptors is allowed to protect each national capitol and one ICBM silo area.⁸⁶ Both nations, in subsequent arms control negotiations and joint statements, reaffirmed the ABM Treaty as the cornerstone of arms control and international strategic stability. Despite these earlier positions, Secretary of State Powell, in testimony before the Senate stated, "No one thinking soundly, logically, would construct a strategic framework with offense only ... not America."⁸⁷ The Russians fear the unraveling of the strategic balance so carefully crafted over the past 30 years with the United States. To understand their viewpoint, the potential effects of NMD deployment on Russia must be looked at from a Russian perspective.

From one Russian viewpoint, the United States will arguably be in a better strategic position after deploying NMD, having added a defensive capability to its overwhelming offensive forces. They see their strategic position as severely weakened, as illustrated by the joint Russian-Chinese statement attributing US NMD to seeking a unilateral military advantage. The Russians foresee the following strategic situation:

- NATO continuing its eastward expansion with an increasing willingness to use force, even outside the auspices of the United Nations.
- Through a combination of arms control agreements, negotiations, and

economic challenges, the number of Russia's strategic nuclear warheads may be forced to shrink to between 1000 and 1500.

- The United States continuing to make technological strides in anti-submarine warfare, threatening the viability of Russia's sea-based nuclear forces. Russia's economic turmoil limits their ability to maintain a robust, deployed sea-based nuclear force.⁸⁸

The combination of the above three factors means that Russia has a decreasing number of strategic systems which are, in turn, increasingly vulnerable to US systems. Russia feels more vulnerable to a debilitating first strike by the United States and feels NMD reduces their retaliatory capability. In short, Russia believes a US NMD deployment would lead to a shift in the strategic balance toward the United States.

The Russia-China balance could also change. The significant Chinese advantage in conventional forces in East Asia is currently offset by superior Russian nuclear forces. As Russia's numbers continue to decline, China is increasing its strategic nuclear forces and may even accelerate that expansion in response to a US NMD deployment. This trend will, in light of the conventional mismatch, place Russia in a worse strategic position vis-à-vis China.

What Would Russia Do?

Russia prefers to take steps to counteract what it sees as a deteriorating strategic balance. As noted above, some concrete steps have already been taken. Every potential new step, however, must be viewed within their current economic constraints. The current defense budget does not support maintenance of the existing military force structure or

the research and development of new systems. In a confrontation scenario, Russia sees the following as legitimate military options to counteract a US deployment of NMD:

- Higher ceilings on numbers of strategic warheads. This option may require abrogating current arms control pacts or discontinuing negotiations on future agreements.
- Keep MIRVed missiles. Outlawed under START II, MIRVs represent one of the most economical counters to a US NMD. Instead of increasing the number of single warhead ICBMs, Russia could return the MIRVed warheads to existing missiles in order to defeat NMD.
- Ensure strategic forces are kept on hair-trigger (launch on warning) alert. This would reduce their vulnerability to a US first strike.
- Resume testing of anti-satellite programs to counter potential US space based NMD sensors or vehicles.
- Increase the number of open ocean strategic submarine deployments to decrease their vulnerability to US anti-submarine forces.
- Rely more on air breathing strategic nuclear forces (strategic bombers, air and sea launched cruise missiles).

The two schools of thought in Russia continue to debate the formulation of Russia's response to a US NMD deployment. Who possesses the upper hand is not absolutely clear, but the debate has sharpened with Bush Administration's stated intent to deploy a system as soon as possible. The authors believe Russian interests are best served by limiting a US NMD system through treaty constraints. Therefore, for analysis purposes later in this paper, the authors assign a 70 percent probability that Russia will choose

cooperation over confrontation. The realistic options open to the Russians are too limited to choose confrontation, so a 30 percent probability is assigned that scenario.

To conclude this chapter, readers are directed to Table 3.1, which summarizes the scenarios used in the paper and the probability the authors have associated with each such scenario. These probabilities will be used in Chapter Four together with a value factor to develop a case for the impact on US national interests.

SCENARIO	PROBABILITY
CHINA TMD to Taiwan	
Conventional Missile Build-up	80%
Confrontation	
- Extreme Spoiler	60%
- Threat of Force against Taiwan	10%
- Limited Force	5%
- Military Build-up/ Forceful Reunification	15%
Cooperation	10%
- Protest and Deal	
CHINA NMD	
Nuclear Modernization	90%
Confrontation	
- Extreme Spoiler	70%
Cooperation	
- Protest and Deal	30%
RUSSIA NMD	
Confrontation	30%
Cooperation	70%

Table 3.1 – Summary of Probabilities

THE POLITICS OF VULNERABILITY: CHINA, RUSSIA AND US MISSILE DEFENSE

CHAPTER 4 VALUING THE OUTCOMES

This chapter evaluates the effect of consequences predicted in Chapter Three on the US National Interests described in Chapter Two. Effects are calculated by multiplying the probability of occurrence (between 0 and 1) and a severity factor (between -5 and +5) and represents the authors' valuation. To provide a reference for assigning a severity factor, extremes (-5 and +5) are defined for each interest.

Interest One: Prevent, deter, and reduce the threat of nuclear, biological and chemical weapons attacks on the United States, its critical infrastructure, its military forces or allies.

Severity Factor.

A value of -5 would represent an actual WMD attack. A value of +5 would represent a practical elimination of the WMD threat.

China

TMD to Taiwan.

Conventional Missile Build-Up. This scenario does not affect interest one.

Confrontation. China's limited role as a spoiler could indirectly increase the risk of WMD

attack due to increased proliferation and a continued or closer relationship between China, North Korea and Iran. However, this risk is addressed in interest three.

Some protection from Chinese WMD could be expected from deploying TMD in the region. However, the authors do not envision a scenario that includes China's use of WMD in response to a US TMD deployment; a value of zero is assigned.

Cooperation. Chinese actions under this scenario do not affect interest one.

China and NMD

Nuclear Modernization. China's actions in this scenario are aimed at maintaining its current minimal deterrence strategy. Their actions could include the following:

- Deploy technology to defeat NMD sensors (decoys and anti-satellite technology)
- Increase its ICBM warheads by 100+

The higher number of warheads targeting the United States represents an increase in the WMD threat. Severity is - 2 (Total = $0.9 \times -2 = -1.8$).

Confrontation. Chinese actions under this scenario will not affect the WMD threat.

Cooperation. Chinese actions under this scenario will not affect the WMD threat.

Russia

Confrontation. Past Russian reactions to potential NMD deployment, discussed earlier, arguably have already harmed US strategic interests. Their possible actions under this scenario, as described in Chapter 3, are:

- Higher numbers of warheads. While Russia may not decrease its number of weapons to their stated desire of 1500 strategic warheads if the US deploys NMD,

the Russian economy does not support an increase from current numbers (6860).

As a result, total warhead numbers will decrease.

- Keep MIRVed missiles. This must be negotiated with the United States unless Russia decides to abrogate the ABM and START Treaties.
- Hair trigger alert. This is a relatively easy action for Russia to take. Again, this action would not be in the interest of the United States. The risks of accidental launch are much greater in a hair trigger posture.
- Resume anti-satellite programs. This is an expensive option, although the Russians have indicated their ability to assign funding when a policy option is decided (e.g. The Federal Funding Law for the Strategic Forces).
- Increase SSBN deployments. Similar to anti-satellite programs, this is easy, technologically feasible, and yet expensive. This option would present a challenge to US anti-submarine forces, but as Russia's SSBN force ages, an increasingly less daunting challenge.
- Rely on air breathing strategic nuclear forces (bombers, cruise missiles). Russia has fielded forces in this category, so no technological challenge is faced. As with the other options, it is only a matter of funding to reinvigorate the bomber force and cruise missile inventories. Since bombers represent the slowest and most vulnerable first strike or retaliatory nuclear forces, an increased reliance on air breathing forces would actually be an advantage to the United States. Unlike ICBMs, bombers can actually be recalled once launched.

The hair trigger alert represents the action most harmful to interest one and is assigned a severity of

-4 (Total: $0.3 \times -4 = -1.2$).

Cooperation. No Russian actions in this scenario reduce the WMD threat.

Interest Two: Establish productive relations, consistent with American national interests, with nations that could become strategic adversaries, China and Russia.

Severity Factor.

A value of -5 would represent a state of hostilities. A value of $+5$ would represent a strategic alliance.

China

TMD to Taiwan.

Conventional Missile Build-Up. The build-up in Chinese conventional missiles capable of striking Taiwan is leading to increased tensions between the United States and China. Admiral Blair, the US Pacific Commander, told Congress: that China's ongoing missile build-up opposite Taiwan is "destabilizing and will lead to a U.S. response unless halted."⁸⁹ A severity factor of -2 is assigned (Total: $0.8 \times -2 = -1.8$).

Confrontation. The extreme spoiler actions in the confrontation scenario represent the worst case. As noted in Chapter Three, some possible Chinese actions include:

- Impede US initiatives.
- Strengthen ties to North Korea and Iran.
- Recall Ambassador.
- Suspend military to military contacts.

Individually, or in combination, these actions would severely degrade relations between the United States and China. A severity factor of -3 is assigned (Total = $0.6 \times -3 = -1.8$).

Cooperation. While this is the best-case scenario for the United States, a severity factor of -1 is assigned. Fielding TMD, regardless of China's acquiescence, will still injure Chinese interests. As a result, China will resent the deployment of TMD and the atmosphere for future relations with the United States will deteriorate (Total: $0.1 \times -2 = -0.2$).

China and NMD

Nuclear Modernization. The increased number of Chinese ICBMs aimed at the United States will harm China's public image in the eyes of the US Congress and public. The economic resources devoted to nuclear modernization detract from resources the Chinese wish to apply to other areas. This will lead to deteriorating relations. A severity factor of -2 is assigned (Total: $0.9 \times -2 = -1.8$).

Confrontation. Examples of Chinese actions under this scenario are the same as those described in the TMD scenario. A severity factor of -3 is assigned (Total: $0.7 \times -3 = -2.1$).

Cooperation. China does not view a US NMD deployment as severely as TMD to Taiwan deployment. This is because the cause-effect relationship of NMD to Taiwan is not as direct as is the case for TMD. A severity factor of -1 is assigned (Total: $0.3 \times -1 = -0.3$).

Russia

Confrontation. Should Russia choose confrontation, they would be less engaged in the

international community, at least in a manner advantageous to the United States. If agreement is not reached on an ABM Treaty modification, it is likely international arms control will greatly suffer. Any US NMD requires the cooperation of European allies, which will lead to friction between Europe and Russia. Russia could show their displeasure by disrupting smooth relations with NATO and the EU. The severity of their potential actions with respect to Europe is -3 (total: $0.3 \times -3 = -0.9$).

Cooperation. Given the centrality of arms control to US-Russian relations, a deal on the ABM Treaty could lead to enhanced relations between the two countries. A severity factor of +1 is assigned (Total: $0.7 \times 1 = +0.7$).

Interest Three: Prevent the regional proliferation of WMD and delivery systems.

Severity Factor.

A value of -5 would represent unrestrained transfer of WMD systems or technology. A value of +5 would represent zero transfer of WMD systems or technology.

China

TMD to Taiwan.

Conventional Missile Build-Up. This scenario has no effect on regional WMD proliferation.

Confrontation. The only applicable case to this interest is that of extreme spoiler. In this scenario, Beijing will maintain their public policy regarding non-proliferation, but continue to export sensitive technology and systems not prohibited, or ambiguously

covered, in current proliferation regimes. Additionally, China would not cooperate with the United States, for example, regarding North Korea. A severity factor of -3 is assigned (Total: $0.6 \times -3 = -1.8$).

Cooperation. This scenario has no effect on regional WMD proliferation.

China and NMD

Nuclear Modernization. The authors do not consider an increase in the number of Chinese ICBMs as meeting the definition of regional proliferation. Therefore, there is no effect on this interest.

Confrontation. The only applicable case to this interest is that of extreme spoiler. Likely Chinese actions include:

- Reconsider non-proliferation commitments.
- Increase warhead development.
- Export penetration aid technology.

A severity factor of -3 is assigned (Total: $0.7 \times -3 = -2.1$).

Cooperation. Chinese cooperation on US NMD will have no effect on regional WMD proliferation.

Russia

Confrontation. Russia's capability to proliferate WMD is unmatched, however, they have repeatedly agreed with the US on the WMD proliferation threat. The authors did not find any evidence that Russia would increase WMD proliferation in response to a US deployment of NMD. Therefore, this scenario has no effect on this interest.

Cooperation. A deal between the United States and Russia on the ABM Treaty would have no effect on regional WMD proliferation.

Interest Four. Contribute to a more secure, peacefully developing Asia-Pacific region, including peace in the Taiwan Strait.

Severity Factor.

A value of -5 would represent a state of hostilities. A value of +5 would represent a completely secure and peacefully developing region.

China

TMD to Taiwan.

Conventional Missile Build-Up. The factors and values for this case are the same as described for Conventional Missile Build-Up under Interest Two (Total: $0.8 \times -2 = -1.6$).

Confrontation. The military build-up and forced reunification of Taiwan is the case most harmful to this interest. A severity of -5 is assigned due to the state of hostilities in the Taiwan Strait under this scenario (Total: $0.15 \times -5 = -0.75$). In the extreme spoiler case, the cessation of military-to-military contacts would lead to less openness and transparency in the PLA. The severity of this is -1 (Total: $0.6 \times -1 = -0.6$). Both cases are discussed here because the effect factor is so close in value.

Cooperation. As noted previously, China will reluctantly accept US TMD to Taiwan in this scenario. The presence of TMD will, at least temporarily, reduce the threat of Chinese missile attack against Taiwan by providing a measure of deterrence. A severity factor of +2 is assigned (Total: $0.1 \times 2 = +0.2$).

China and NMD

Nuclear Modernization. China's response to NMD in this scenario includes the build-up of DF-41 ICBMs, MIRVs, and penetration aids to defeat NMD. These systems will have an insignificant effect on the regional security, and a severity of zero is assigned. The authors do not view the on-going DF-31 build-up as a response to NMD. Any regional instability resulting from DF-31 deployment is not included in this valuation.

Confrontation. China's extreme spoiler response to NMD includes:

- Reconsider non-proliferation commitments.
- Export penetration aid technology.

The proliferation of sensitive technology to North Korea, Iran, Iraq and Pakistan degrades security in the region. A severity of -2 is assigned (Total: $0.7 \times -2 = -1.4$). The severity (-2) assigned is less than the severity (-3) assigned in the same scenario for Interest Three (regional proliferation) since regional security encompasses more elements than non-proliferation.

Cooperation. Chinese cooperation on US NMD will have no direct effect on regional security.

Russia

Confrontation. The strategic modernizations and enhancements that are a likely Russian response to US NMD deployment will lead to deteriorating Chinese-Russian relations. The balance between superior Chinese conventional and Russian strategic forces will be upset. A severity factor of -1 is assigned (Total: $0.3 \times -1 = -0.3$).

Cooperation. A deal between the United States and Russia on the ABM Treaty would enhance

relations between the two nations. Stable US-Russian relations would benefit regional security and US interests in the Asian-Pacific. A severity factor of +1 is assigned (Total: $0.7 \times 1 = +0.7$).

Interest Five. Maintain the ability to fight and win decisively. This interest presupposes conflict and the authors evaluate the effect of having fielded TMD and NMD in a conflict scenario.

Severity Factor.

A value of -5 would represent the loss of the ability to project overwhelming force. A value of +5 would represent an unrestrained ability to project overwhelming force.

China

TMD to Taiwan.

Independent of China's reaction to TMD to Taiwan is the protection that a TMD system provides. TMD could significantly reduce the impact from a Chinese conventional missile attack aimed at destroying a military capability on Taiwan and forces at sea. As noted earlier, China will employ sufficient numbers of missiles to overwhelm any deployed TMD. The benefit to US interests from Taiwan having a TMD capability is limited. This impact includes a reduced US force requirement to defend Taiwan gained from a Taiwan TMD. A severity factor of +1 is assigned (Total: $1 \times 1 = +1$).

China and NMD

Independent of China's reaction to NMD is the protection that a NMD system provides.

NMD could reduce the impact of a Chinese nuclear attack on the United States. The authors' valuation assumes that China deploys sufficient capabilities to retain a minimum second-strike force that can counter a US NMD system. A severity factor of +2 is assigned (Total: $1 \times 2 = +2$).

Russia

NMD does not enhance US ability to fight and win a robust strategic exchange with Russia, since the system is designed only against a limited threat. The ability to counter an accidental launch is not applicable to this particular US interest. A severity factor of 0 is assigned since the system gives us essentially no warfighting capability versus Russian strategic forces.

Interest Six. Preserve crisis response capability. For this interest, a crisis is presupposed and the authors evaluate whether having fielded TMD and NMD helps preserve a full range of military options in response to a crisis.

Severity Factor.

A value of -5 would represent the loss of freedom of military action in a crisis. A value of +5 would represent total freedom of military action in a crisis.

China

TMD to Taiwan.

Independent of China's reaction to TMD deployment value is the protection that a TMD

system provides and the freedom from Chinese coercion. With deployed TMD providing force protection to the Taiwanese, the United States retains more force projection alternatives in a crisis situation. Additionally, the United States and Allies are less subject to blackmail or threats. A severity factor of +2 is assigned (Total: $1 \times 2 = +2$).

China and NMD

The present strategic balance between China and the United States is the starting point for valuing the effect of US NMD on this interest. Current US freedom of action in a crisis represents a value of 0. The authors are valuing whether any additional freedom of action ensues because the US has NMD and is less susceptible to blackmail from China. The case assumes China will build enough strategic capabilities to retain a creditable second strike. The NMD would, therefore, affect the strategic balance only minimally. Any additional freedom of action would be very small. A severity factor of +1 is assigned (Total: $1 \times 1 = +1$).

Russia

With a system capable of intercepting tens of missiles, and Russia's possession of many thousands, it is difficult to envision NMD increasing US crisis response capability with respect to Russia. A severity factor of 0 is assigned.

Interest Seven. Maintain, support, and contribute to the integrity and adaptation of the North Atlantic Treaty Organization.

Severity Factor.

A value of -5 would represent the collapse of NATO. A value of +5 would represent Russia joining NATO.

China

Chinese actions do not directly affect NATO.

Russia

Confrontation. As described in Chapter 3, Russia is currently trying to use the NMD issue to create a wedge between the United States and its Allies. Their opposition to ABM Treaty modifications and proposal to build a Russian-European joint system are designed to weaken NATO by dividing the United States and the remainder of NATO nations. Recent public statements by European leaders indicate this strategy is largely unsuccessful. Some discord is present, however. A severity factor of -2 is assigned (Total: $0.3 \times -2 = -0.6$).

Cooperation. A deal with Russia on NMD would erase one of the two current major debates in NATO between the US and its Allies. Severity would be a +2 (Total = $0.7 \times 2 = +1.4$).

Interest Eight. Advance arms control and disarmament processes to reduce nuclear weapons and delivery systems, achieve an appropriate mix of strategic offensive and defensive forces.

Severity Factor.

A value of -5 would represent the abandonment of arms control processes and regimes. A value of +5 would represent nuclear disarmament.

China**TMD to Taiwan.**

Chinese reactions to TMD in Taiwan do not affect this interest.

China and NMD

Nuclear Modernization. China's response to NMD includes increasing the number of ICBMs and warheads to maintain its minimal deterrent. This increase is counter to the objective of arms control and disarmament. The impact to this interest is moderate considering the limited number of missiles China would build relative to the US or Russian inventory, even at START III levels. The severity factor is - 2 (Total: $0.9 \times -2 = -1.8$).

Confrontation. China's extreme spoiler response to NMD includes:

- Reconsider non-proliferation commitments.
- Export penetration aid technology.

These actions would have a limited effect on arms control processes. A severity factor of -2 is assigned (Total: $0.7 \times -2 = -1.4$).

Cooperation. China's acquiescence to US NMD will not affect the arms control process.

Russia

Confrontation. Russian actions that include increased number or warheads, restoring MIRVs and putting weapons on a hair-trigger alert would produce mixed benefits with respect to this interest. A more balanced mix of strategic weapons is achieved (offensive and defensive weapons), however, the arms control process is harmed if the United States and Russia do not reach consensus on the ABM Treaty. A severity factor of -2 is assigned (Total: $0.3 \times -2 = -0.6$).

Cooperation. This scenario not only preserves arms control, but also enhances the mix of offensive and defensive forces, so the severity is $+3$ (Total = $0.7 \times 3 = +2.1$).

Summary of Valuations

Table 4.1 summarizes all valuations calculated. To graphically view the impact of TMD and NMD on US interests, Figures 4.1 – 4.4 depict the minimum and maximum values of the “effect” on each US interest. No weighting has been assigned to each interest; rather they were grouped into three broad categories, in descending order of importance. Conclusions will be drawn based on the overall effects on US national interests.

Interest	Prevent & Deter			Product Relations			Proliferation			Peaceful Region			Fight & Win [#]			Crisis Resp [#]			Maint NATO			Adv Arms Cntrl		
	P	F	T	P	F	T	P	F	T	P	F	T	P	F	T	P	F	T	P	F	T	P	F	T
China (TMD)													1	1	1	1	2	2						
Conventional Build-up	0.8	0	0	0.8	-2	-1.6	0.8	0	0	0.8	-2	-1.6	-	-	-	-	-	-	0.8	0	0	0.8	0	0
Confront*			0			-1.8			-1.8			-0.75	-	-	-	-	-	-						
- Spoiler	0.6	0	0	0.6	-3	-1.8	0.6	-3	-1.8	0.6	-1	-0.6	-	-	-	-	-	-	0.6	0	0	0.6	0	0
- Threat	0.1	0	0	0.1	-4	-0.4	0.1	0	0	0.1	-4	-0.4	-	-	-	-	-	-	0.1	0	0	0.1	0	0
- Limit use	0.05	0	0	0.05	-5	-0.25	0.05	0	0	0.05	-5	-0.25	-	-	-	-	-	-	0.05	0	0	0.05	0	0
- Reunify	0.15	0	0	0.15	-5	-0.75	0.15	0	0	0.15	-5	-0.75	-	-	-	-	-	-	0.15	0	0	0.15	0	0
Cooperate	0.1	0	0	0.1	-2	-0.2	0.1	0	0	0.1	2	0.2	-	-	-	-	-	-	0.1	0	0	0.1	0	0
China (NMD)													1	2	2	1	1	1						
Nuclear Mod	0.9	-2	-1.8	0.9	-2	-1.8	0.9	0	0	0.9	0	0	-	-	-	-	-	-	0.9	0	0	0.9	-2	-1.8
Confront	0.7	0	0	0.7	-3	-2.1	0.7	-3	-2.1	0.7	-2	-1.4	-	-	-	-	-	-	0.7	0	0	0.7	-2	-1.4
Cooperate	0.3	0	0	0.3	-1	-0.3	0.3	0	0	0.3	0	0	-	-	-	-	-	-	0.3	0	0	0.3	0	0
																-	-	-						
Russia (NMD)													1	0	0	1	0	0						
Confront	0.3	-4	-1.2	0.3	-3	-0.9	0.3	0	0	0.3	-1	-0.3	-	-	-	-	-	-	0.3	-2	-0.6	0.3	-2	-0.6
Cooperate	0.7	0	0	0.7	1	0.7	0.7	0	0	0.7	1	0.7	-	-	-	-	-	-	0.7	2	1.4	0.7	3	2.1

P-Probability, F-Factor, T-Total. * Tables show “worst case” along this row. # Interest 5 & 6 presuppose a scenario.

Table 4.1 –Comparison of Impacts against US National Interests

Prevent & Deter NBC Threat
 Establish Productive Relations
 Prevent Regional Proliferation
 Secure, Peaceful Asia-Pacific
 Maintain Ability to Fight & Win
 Preserve Crisis Response
 Maintain NATO
 Advance Arms Control

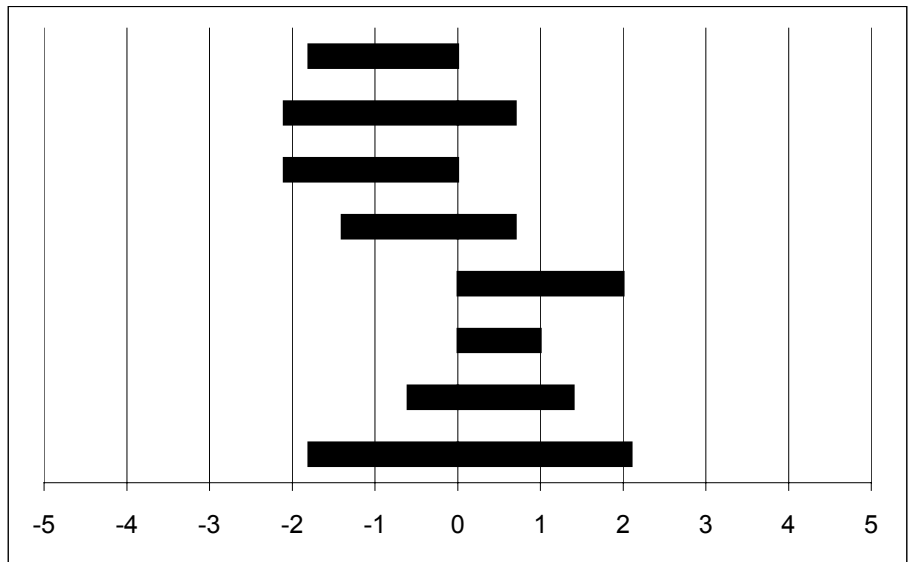


Figure 4.1 - China-Russia NMD (Full Range-Combined)

Prevent & Deter NBC Threat
 Establish Productive Relations
 Prevent Regional Proliferation
 Secure, Peaceful Asia-Pacific
 Maintain Ability to Fight & Win
 Preserve Crisis Response
 Maintain NATO
 Advance Arms Control

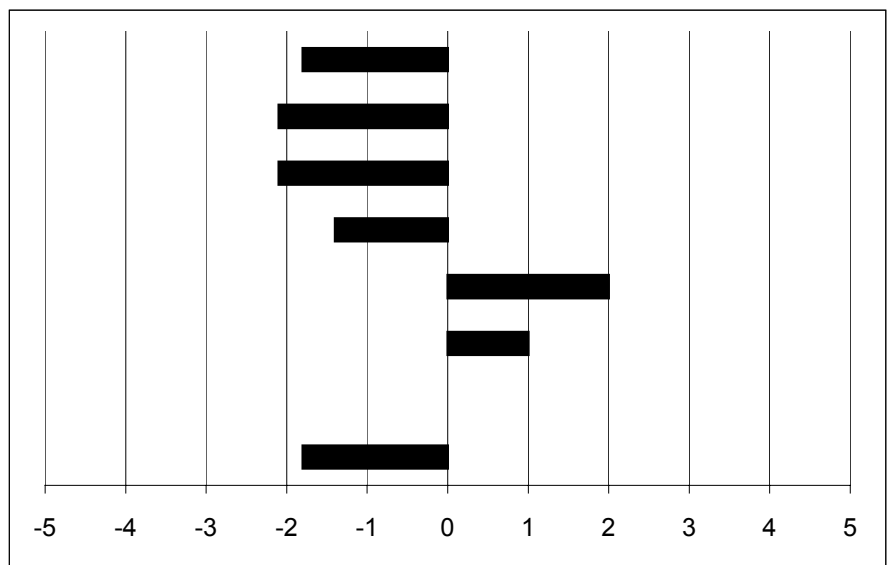


Figure 4.2 - China NMD

Prevent & Deter NBC Threat
 Establish Productive Relations
 Prevent Regional Proliferation
 Secure, Peaceful Asia-Pacific
 Maintain Ability to Fight & Win
 Preserve Crisis Response
 Maintain NATO
 Advance Arms Control

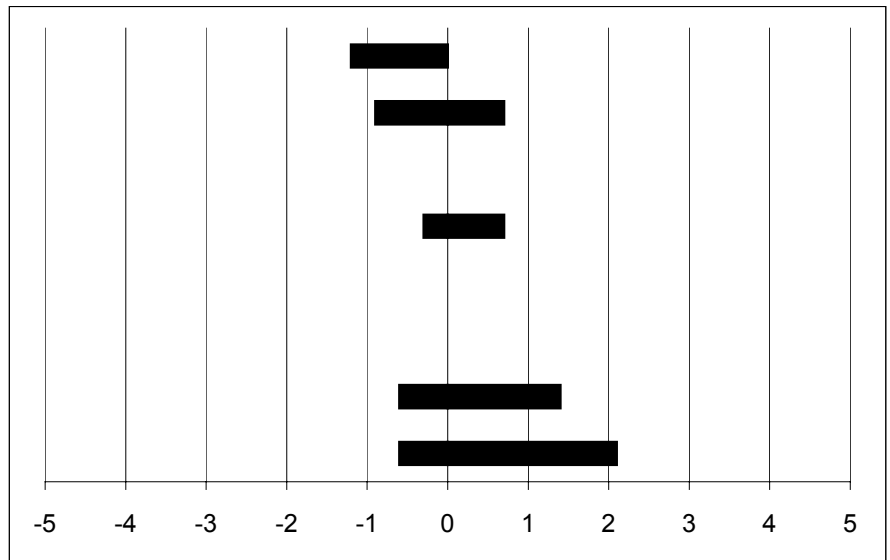


Figure 4.3 - Russia NMD

Prevent & Deter NBC Threat
 Establish Productive Relations
 Prevent Regional Proliferation
 Secure, Peaceful Asia-Pacific
 Maintain Ability to Fight & Win
 Preserve Crisis Response
 Maintain NATO
 Advance Arms Control

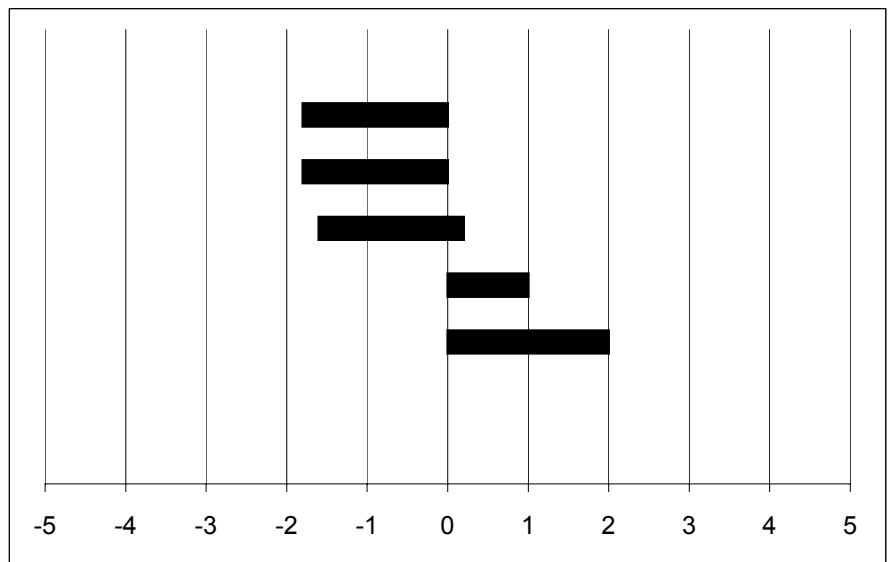


Figure 4.4 - TMD to Taiwan

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CHINA, RUSSIA AND US MISSILE DEFENSE**

**CHAPTER 5
FINDINGS, CONCLUSION AND RECOMMENDATIONS**

The analysis conducted in this paper has led the authors to several findings. These findings lead to the conclusions and recommendations.

FINDINGS

TMD

- China accepts US deployment of TMD in the Asia-Pacific region for force protection. Therefore, joint US-Japan TMD development is not a significant issue in this debate.
- The extent of US-Russian cooperation on TMD means there is no negative Russian reaction to deployment of US TMD.

TMD to Taiwan

- Deployment of TMD to Taiwan represents a net negative effect to US Category A interests.
 - Prevent and Deter NBC Threat
 - Establish Productive Relations with China and Russia
 - Prevent Regional Proliferation
 - Secure, Peaceful Asia-Pacific
- Deployment of TMD to Taiwan represents a net positive effect to US Category B interests.
 - Maintain the Ability to Fight and Win Decisively
 - Preserve Crisis Response Capability

- Deployment of TMD to Taiwan has no effect on Category C interests.
 - Maintain NATO
 - Advance Arms Control

NMD

- With respect to China, deployment of NMD positively affects only Category B interests.
- With respect to China, deployment of NMD negatively affects Category A and C interests.
- China sees NMD as a direct threat to its nuclear deterrent and will respond by increasing its ICBMs, warheads, and penetration aids to maintain a “minimal deterrent” against the United States.
- China’s strong commitment to economic development and concern with their world standing constrain their probable reactions to US TMD and NMD.
- China views the US motivation for NMD as furthering its hegemony, both regionally and internationally. As a result, an extreme spoiler reaction from China is likely.
- US deployment of NMD will not cause a nuclear arms race between China, India, and Pakistan.
- North Korean reactions to US NMD will not significantly affect the US interests analyzed.
- With respect to Russia, deployment of NMD has a slightly negative effect on US Category A interests.
- With respect to Russia, deployment of NMD has no effect on US Category B interests.
- With respect to Russia, deployment of NMD has a positive effect on US Category C interests.
- Russian reactions to NMD have the most potential impact on US arms control interests.
- Russia’s strategic cooperation with China will not increase in direct response to US NMD

deployment. In the more likely cooperation scenario, no rationale exists to bring them closer together. In the confrontation scenario, Russia's military build-up will exacerbate relations with China.

CONCLUSIONS

TMD

- US deployment of TMD to the Asia-Pacific region, excepting Taiwan, will have no significant negative effects on US interests but could provide significant benefits not included in this analysis.

TMD to Taiwan

- The positive effects realized from providing advanced TMD to Taiwan (enhanced crisis response capability, increased warfighting capability) are outweighed by the negative effects to broader US interests (non-proliferation, WMD protection, improved relations with China, a more secure Asia-Pacific region).
- Providing less advanced TMD to Taiwan (PAC-2, PAC-3) advances US and Taiwanese objectives and minimizes the negative effects to US broader interests.

NMD

- Deploying NMD has both positive and negative effects on US interests. US national security is not harmed to an extent to preclude deployment of NMD.
- North Korean reactions to NMD should have a minimal effect on US NMD policy decisions.
- Successful non-proliferation efforts require the active cooperation of Russia and China.

- With respect to China, the positive effects of NMD to US crisis response and warfighting interests are outweighed by the negative effects to US broader interests.
- China's commitment to maintaining a minimal strategic deterrent creates the potential for escalation (e.g. more Chinese strategic forces leads to more capable US NMD which leads to more Chinese strategic forces...). It is not clear the United States can maintain a defensive advantage over China's offensive strategic forces without a significant increase in defense expenditures.
- The fear of a regional nuclear arms race (China-India-Pakistan) as a result of US NMD deployment should not affect US NMD policy decisions.
- Domestic economic considerations will be the primary determinant in Chinese reactions to US NMD for the foreseeable future.
- Russian reaction to NMD can have significant positive or negative effects on US arms control interests. The positive effects are more likely, however, the negative effects are significant enough to warrant close scrutiny.
- The fears of Chinese-Russian strategic cooperation resulting from US NMD should not significantly effect US NMD policy decisions.

RECOMMENDATIONS

The following recommendations should be adopted:

- Do not provide Taiwan advanced TMD or create a joint US-Taiwan TMD system.

The Administration must examine whether or not the President's responsibilities under the Taiwanese Relations Act can be met with PAC-3. This could be achieved through application of existing modeling and simulation. The United States should offer to defer transfer of Aegis

based TMD to Taiwan contingent on Chinese agreement to verifiable missile reductions targeting Taiwan.

- Intensify initiatives to secure Russian cooperation on NMD and resolution of the ABM Treaty issue. Agreement will ensure the cooperation of United States allies and prevent the potential negative effects on United States arms control interests. Sequencing matters. Approach Russia first. Pursue the concept that links NMD deployment with United States reduction in strategic arms (better offense-defense mix). Once a satisfactory outcome is achieved, then approach China. By breaking the Sino-Russian coalition against NMD, China is more likely to reach an accommodation or understanding with the United States on NMD.
- Enhance the dialogue with China to prevent an escalation in response to United States NMD that includes increasing numbers of Chinese strategic forces and an increasingly capable United States NMD system. United States should propose a bilateral treaty with China that includes verification of Chinese strategic forces and United States NMD. Even if China rejects this proposal, the United States offer will strengthen its position on arms control in the international community.
- Ensure continued engagement with China and Russia on non-proliferation issues. The United States must recognize it cannot be successful in controlling weapons transfers without the cooperation of both Russia and China. The United States could step-up its leadership role in this area and review its own policy of arms sales.

Endnotes

Chapter 1

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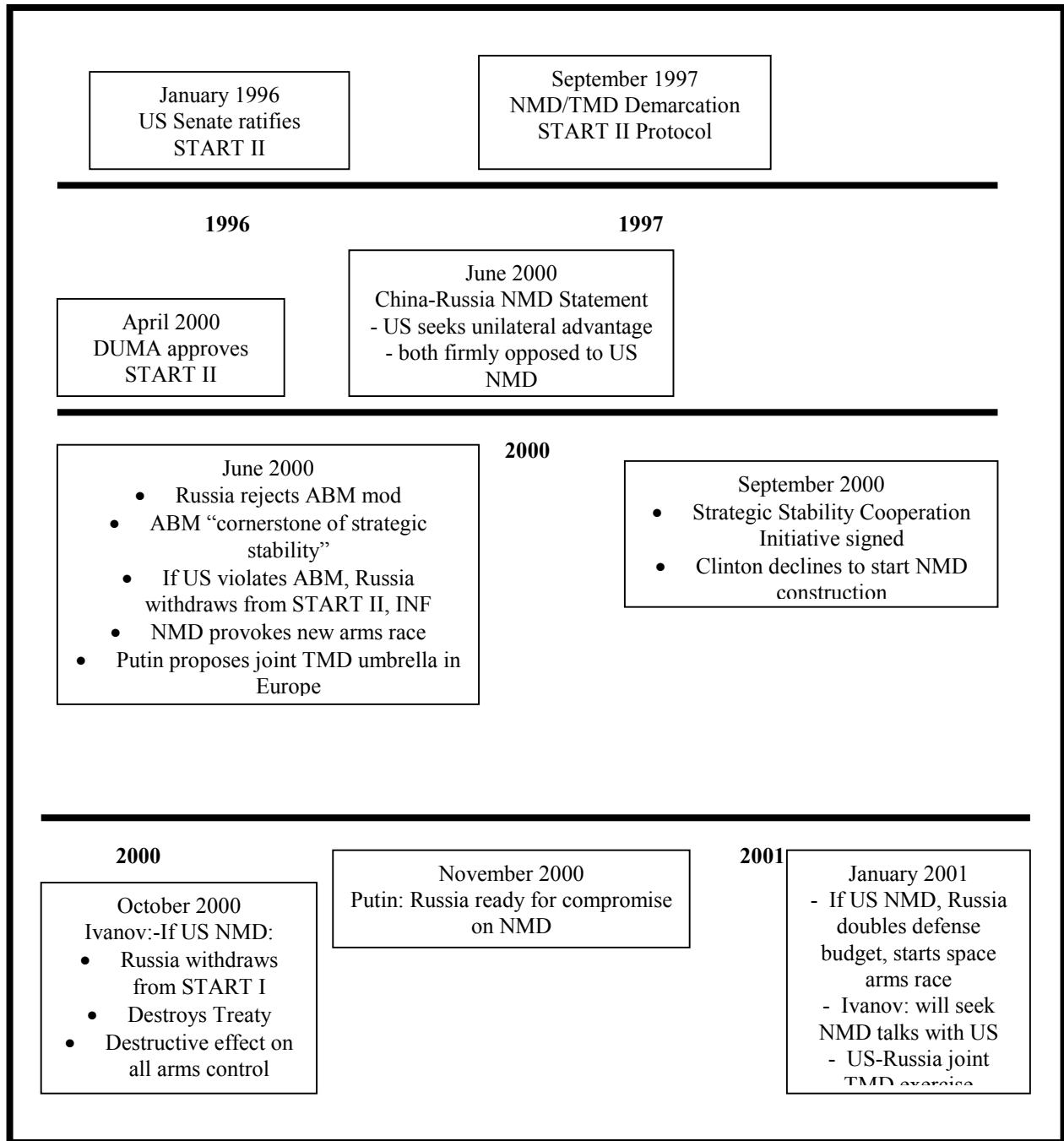
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APPENDIX A

RUSSIAN NMD REACTIONS TIMELINE



THE POLITICS OF VULNERABILITY: CHINA, RUSSIA AND US MISSILE DEFENSE

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